

CLAIMS

1. A hydraulic lifting device that is rapidly lifted, by a mechanical linkage, to the required lifting point prior to using the hydraulic system to actually raise the vehicle; wherein the
- 5 lifting device consists of two side vertical plates, a lifting arm and a saddle support plate at the front end thereof; there is a clearance hole through the vertical side plate at a predetermined position; the saddle support plate has an axial rod at a predetermined position: the rotating shaft 2 protrudes
- 10 through the clearance hole provided in the vertical side plate; the rotating shaft is attached integrally with the linkage and the other end of the linkage is attached integrally with the axial rod on the saddle support plate; by the use of the above component assembly, when the rotating pin is rotated the linkage moves forward and the axial pin is rotated in the saddle support plate so that the lifting arm of the device is rapidly raised through space to the lifting support point of the vehicle; this movement is achieved rapidly with a mechanical motion rather than a hydraulic motion.
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- 20 2. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism as claimed in claim 1 wherein there is an axial rod in the saddle support plate.
- 25 3. A hydraulic lifting device capable of being rapidly raised in a

- mechanical movement by the use of a linkage mechanism as claimed in claim 1, wherein the inboard section of the rotating shaft is attached integrally to the linkage, and the outboard section of the rotating shaft is integrally attached to a foot pedal.
- 5 4. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism as claimed in claim3, wherein the inboard section of the rotating shaft is attached integrally to the linkage, and the outboard section of the rotating shaft is integrally attached to a lifting handle.
- 10 5. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism as claimed in claim3, wherein the rotating shaft is movably attached to the foot pedal.
- 15 6. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism as claimed in claim 4, wherein the rotating shaft is integrally attached to the lifting handle.
- 20 7. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism as claimed in claim 5, wherein the outboard section of the rotating shaft has a threaded hole crossways to axis on the side, plus an axial threaded hole on the end face; one end of the foot pedal has a raised cylindrical post, with an axial hole through
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the post, and on the inboard end of the post is a radial slot; wherein the pedal is attached to the rotating shaft and the pedal is allowed to move forward freely until the stud hits the extreme end of the slot so as to be in a stowed non use position.

- 5 8. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism, as claimed in claim 7, wherein the slot in the foot pedal cylindrical post has a selected cut angle.
9. A hydraulic lifting device capable of being rapidly raised in a 10 mechanical movement by the use of a linkage mechanism, as claimed in claim 7, wherein a washer is adjoined to the end face of the rotating shaft, and a screw is threaded into the threaded hole so that the foot pedal and the rotating shaft are combined coaxially.
- 15 10. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of linkage mechanism, as claimed in claim 7, wherein the stud is a pin rod.
11. A hydraulic lifting device capable of being rapidly raised in a 20 mechanical movement by the use of a linkage mechanism, as claimed in claim 4, wherein the lifting handle has a clevis type shape that fits over both of the vertical side plates. The vertical sides of the handle have concentric posts at each lower end with engaging holes on the axis. Each of these posts have a slot with a selected cut angle on the inner end surface of the post; 25 whereby the lifting handle is attached to the two rotating shafts

and the two linkages to coaxially combine two posts on the lifting handle at each side.

12. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism, as claimed in claim 11, wherein the slot has a selected cut angle.

13. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism, as claimed in claim 1, wherein a cross axial hole is formed in an extended outboard section of the rotating shaft; an auxiliary rod with an extending diameter is inserted into the cross hole of the rotating shaft; thereby, by moving the auxiliary rod the rotating shaft rotates and the linkage drives the lifting arm of the lifting device.

14. A hydraulic lifting device capable of being rapidly raised in a mechanical movement by the use of a linkage mechanism, as claimed in claim 1, wherein a cylindrical post is inserted into the outboard end of the extended rotating shaft, and the auxiliary rod has a hole in the front which fits over the cylindrical post, thereby, by moving the auxiliary rod the rotating shaft rotates and the linkage drives the lifting arm of the lifting device.